



SC PRIVATE LETTER RULING #91-1

TO: ABC, Inc.

TAX ANALYST: Deana West

SUBJECT: High Purity Water Treatment System
(Sales and Use Tax)

REFERENCE: S.C. Code Ann. Section 12-36-2120(17) (Supp. 1990)

AUTHORITY: S.C. Code Ann. Section 12-3-170 (1976)
SC Revenue Procedure #87-3

SCOPE: A Private Letter Ruling is a temporary document issued to a taxpayer, upon request, and it applies only to the specific facts or circumstances related in the request.

Private Letter Rulings have no precedential value and are not intended for general distribution.

Question:

Are the materials, as described in the facts, to be used by "ABC" in constructing a high purity water system for "XYZ" exempt from sales and use tax pursuant to Code Section 12-36-2120(17)?

Facts:

ABC, a New York registered company, is a wholly owned subsidiary of "DEF." ABC has been awarded a contract to design, build and supply the components of a high purity water treatment system for a new XYZ manufacturing plant being built in South Carolina. The water treatment system will purify city water and produce ultra pure water to be used in the manufacture of XYZ's product.

The system, consisting of numerous components including tanks, pumps, filters, chemical handling machinery, instrumentation and controls, is to be partially piped and electrically wired in the ABC shop outside of South Carolina and shipped to South Carolina where it will be physically installed and connected by local mechanical and electrical contractors under ABC's supervision.

The system under construction by ABC includes the construction of the following items which are numbered to correspond to the plant process described below:

1. Process water storage tank
2. Process water pumps, activated carbon filters
3. Sodium bisulfite feed system
4. Primary mixed bed exchangers
5. Primary DI water storage tanks, DI water transfer pumps, polished mixed beds, micron cartridge filters
6. Hot subloop tank, pumps and accessories and cold subloop tank, pump and accessories
7. Acid regeneration system, caustic regeneration system
8. Waste water surge tank
9. Set instruments, lot local solenoid panels, control panel, lot interconnecting piping and motor control center to be used in the system.

The high purity water treatment plant process can be described as follows:

1. City or process water is put into a 22,000 gallon process water storage tank. The tank acts as a buffer to even out flows and to act as a storage tank for the process during city maintenance, interruption and the like.
2. Three process water pumps then pump city water into three activated carbon filters. The filters are steel tanks filled with fine activated carbon granules. The purpose of the carbon is to remove chlorine in the water which is detrimental to subsequent process steps.
3. As water leaves the carbon filters, chemical feed tanks and feed pumps add sodium bisulfite in order to neutralize any residual chlorine not removed by the activated carbon.
4. The water then passes through two high primary mixed bed ion exchangers. These are steel, rubber lined vessels filled with ion exchange resins. The impurities in the water eventually overload the chemically active sites on the ion exchange resin beads and the resin is said to be exhausted. This occurs about once per day by design. At this point, the resin sites are made active again by adding hydrochloric acid and sodium hydroxide during a process called regeneration. The dilution water heat exchanger, hydrochloric acid tank and pumps, naoh caustic tank and pumps are required to control the chemical addition during regeneration.
5. The purified water is stored in two 42,000 gallon demineralized water tanks which act as a buffer during maintenance, etc. The purified water is pumped from these two tanks by three water transfer pumps to a set of polishing mixed bed ion exchangers. The purified water is brought in contact with ion exchange resin beads again in order to purify it to an even higher extent.
6. The highly purified water is directed to the hot subloop tank (HSLT) and the cold subloop tank (CSLT). The water in the HSLT is pumped to various processes in the factory by the hot subloop pumps and is heated to 128 degrees Fahrenheit by steam in the

heat exchanger. The water not used in the factory is returned to the hot subloop tank (HSLT). The CSLT operates as the HSLT except it is set up to be at 61 degrees Fahrenheit and has a cooling heat/exchanger. This CSLT also has some small portable mixed bed ion exchangers and some cold subloop cartilage filters in the water circuit.

7. The ion exchangers are regenerated with hydrochloric acid and sodium hydroxide. Hydrochloric acid in the hydrochloric acid tank (HCLT) is pumped with metering pumps to a mixing tee where it is mixed with dilution water to a controlled concentration and then directed to whichever mixed bed ion exchanger is being regenerated. The same thing is done with sodium hydroxide as above, but in addition the dilution water is heated to 120 degrees Fahrenheit with steam using the dilution water heat exchanger.
8. The waste water surge tank is used to hold and neutralize the acid and sodium hydroxide which are not totally consumed in the ion exchange regeneration process, prior to being discharged to the XYZ Waste Treatment Plant.

Discussion:

Code Sections 12-36-910 and 12-36-1310 impose the sales tax and use tax, respectively. The sales tax is imposed upon the retail sale of tangible personal property and the use tax is imposed upon the storage, use, or consumption of tangible personal property purchased at retail for storage, use or consumption in this State.

Code Section 12-36-2120(17) exempts from sales and use tax:

...the gross proceeds of sales of...machines used in manufacturing...tangible personal property for sale. 'Machines' include the parts of machines, attachments, and replacements used...on or in the operation of the machines and which are necessary to the operation of the machines...

Regulation 117-174.120 provides an interpretation of the term "machines" and reads, in part:

...The terms "...parts of such machines" are restricted to the following: (a) they must be used or manufactured for use, on or in the operation of such machines; (b) necessary to the operation of such machines and (c) customarily so used. These restrictions are interpreted to mean that the part or attachment must be purchased in the form in which it will be used by the manufacturer without any fabrication or alteration by him, except the usual and customary minor adjustment, (except as stated at 117-174.123) and that it is a standard part or attachment customarily used and, further, that the machine or machinery on which it is used would not do the work for which it was designed if it were not used.

This, of course, exempts all parts and attachments without which the machine would do no work, and, in addition, it exempts parts and attachments designed to increase the efficiency of the machine.

Additionally, Regulation 117-174.123 provides that the materials used to build machines which manufacture tangible personal property for sale may be purchased by their manufacturers free from sales or use tax and reads:

Manufacturers or compounders are entitled to purchase at wholesale free of the sales or use tax, materials used by them in the building of machines for the purpose of manufacturing or compounding tangible personal property for sale.

It should be noted that only those materials are exempt to manufacturers or compounders which are used by them in building machines for the purpose of manufacturing or compounding tangible personal property for sale. This ruling would not be for application in the case of the use of property in the nature of building materials from which there is erected a "structure," which upon completion might be used for producing tangible personal property for sale.

The law, therefore, provides that machines, their parts and attachments, that are used in manufacturing tangible personal property for sale qualify for the exemption found in Code Section 12-36-2120(17).

The South Carolina Court of Appeals reviewed the application of the exemption found in Code Section 12-36-2120(17), formally Code Section 12-35-550(17), and Regulation 117-174.123 in Hercules Contractors and Engineers, Inc. v. South Carolina Tax Commission, 280 SC 426, 313 SE 2d 300 (1984). The court reviewed the tax exempt status of materials purchased by Hercules Contractors that were used to construct a waste water facility at the Klopman textile plant. The court concluded that a "particular structure" may or may not constitute a machine for tax purposes, depending not upon its form but upon its use." The court, in reaching its' conclusion stated:

Hercules was the manufacturer of this machine for the Klopman plant, which in turn used it to manufacture tangible personal property for sale. We therefore hold that this regulation [117-174.123] clearly provides Hercules was entitled to purchase the materials used to construct this facility free of sales or use tax.

Finally, it must be determined whether the tanks are "machines" for tax purposes. The following regulations provide guidance in making this determination:

Regulation 117-174.140 - Tanks which are a part of the chain of processing operations are exempted by the machine exemption.

Regulation 117-174.141 - Storage tanks are not exempted from the tax by the machine exemption.

Regulation 117-174.142 - ...the removal or disposal of waste materials is not of itself a manufacturing process on which a claim for exemption could be based. The waste removal machinery must be an attachment of an exempt machine to come within the exemption.

The above regulations, therefore, provide that storage tanks are not exempt from sales and use tax, however, tanks which are part of the processing operations are exempt from sales and use tax.

Conclusion:

The activated carbon filters, sodium bisulfite feed system, primary mixed bed exchangers, primary DI water storage tanks, DI water transfer pumps, polished mixed beds, micron cartridge filters, hot subloop tank, pumps and accessories, cold subloop tank, pump and accessories, acid regeneration system, caustic regeneration system, set instruments, lot local solenoid panels, control panel, lot interconnecting piping and motor control center used by ABC in constructing a high purity water treatment system for XYZ are exempt from the sales and use tax, pursuant to Code Section 12-36-2120(17) and Regulation 117-174.140.

However, the process water storage tank, process water pumps and waste water surge tank are storage tanks and not "machines" used directly in the manufacturing process and, therefore, are not exempt from sales and use tax.